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**GLOBALINK RESEARCH INTERNSHIP AWARD  
DISBURSEMENT INFORMATION AND PLACEMENT TERMS AND CONDITIONS**

Dear AMIRTHA VARSHINI RAJA SONATHREESAN LATHA,

Congratulations! You have been selected by Mitacs and Dwayne Tannant from University of British Columbia – Kelowna to receive a 2021 Globalink Research Internship award. This award is jointly funded by Mitacs and the All India Council for Technical Education (AICTE). You are therefore invited to participate in a research project at University of British Columbia – Kelowna. Pursuant to an agreement with University of British Columbia – Kelowna, Mitacs will administer your funding grant.

Mitacs Globalink Research Internship is a competitive program that pairs top-ranked international students with specific research expertise with faculty at Canadian academic institutions for a twelve (12) week research project of mutual interest between May and October. You have been selected by your Canadian host faculty project leader due to your background and skills in the research area and the unique contribution you will be making to the research during your internship. The skills required for your role (as described in the research description below) were found to clearly match your skills set, education, and research experience.

**Research internship details**

<b>University/Institution:</b>	University of British Columbia – Kelowna
<b>Host Professor:</b>	Dwayne Tannant
<b>Research Project Title:</b>	Geohazard mapping with AI and machine learning
<b>Research Description:</b>	The project goals are to identify and map geohazards such as landslides and debris flows in British Columbia. The Google Earth Engine will be one platform used for image retrieval, analysis and presentation. GIS software such as ArcGIS, QGIS, and Global mapper may also be used. Visit Google Earth Engine on-line to get a sense for what can be done.

Aerial images acquired using UAVs will also be processed and merged with other datasets. Structure-from-motion photogrammetry-based software will be used to create point cloud data sets involving 10s of millions of 3D coordinates as well as digital surface models. Often surveys are conducted at different times to allow for change detection (movement monitoring) between different data sets.

The Mitacs position is for a research assistant to work with a small team of graduate students conducting research on geohazard evaluation and mapping. The research will require some debugging and writing software (Matlab and Python). Elements of machine learning and AI via the Google Earth Engine will also be used to process big datasets.

<b>During your internship, you will be:</b>	The student will primarily be involved in processing data sets of aerial photos with application of different classification and AI algorithms to identify geohazard locations. The spatial and image texture properties of known geohazard locations will be used to train the algorithms to identify new locations as well as map the terrain that is most susceptible to future instabilities.
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The student would also be responsible for making maps with multiple layers of data, probably using one or more of the following platforms: Google Earth Engine, Global Mapper, ArcGIS, or QGIS. The resulting maps will be used to test different geohazard identification workflows. The research will need to merge, combine, and process data from difference sources, different scales, and different coordinate systems.

**Duration of Research:** 12 weeks, to begin between May 1 and July 31, 2021 (unless otherwise approved by Mitacs) and end no later than October 31, 2021 (unless otherwise approved by Mitacs). Shortened durations must be agreed upon with the supervisor and Mitacs. Durations of more than twelve (12) weeks will not be permitted.

**Hours of Work:** Minimum of forty (40) hours per week.

Due to the travel and public health restrictions, Mitacs is carrying out the 2021 Globalink Research Internship program virtually. The funding and pre-internship logistics will be adjusted accordingly. You will be expected to follow all clauses as laid out in Appendix A: Terms and Conditions – Obligations of the Interns.

**This letter cannot be used for purposes of travel.**

We look forward to welcoming you as a temporary member of the research team at University of British Columbia – Kelowna.

**Acknowledgements:**

Mitacs Globalink gratefully acknowledges the financial support of the Government of British Columbia, the Government of Canada as well as our partner in India, All India Council for Technical Education (AICTE).

Sincerely,



Petra Kukacka  
Director, Program Operations

Enclosure:

- Appendix A: Terms and Conditions

## Appendix A: Terms and Conditions

Please note that your funding is provided in accordance with the All India Council for Technical Education (AICTE), India.

### **Obligations of Mitacs**

#### **a) Financial arrangements**

Mitacs will be responsible for providing the following:

1. A living stipend of Can\$900
2. A stipend of Can\$300 for any student fees charged by your Canadian host institution (student fees above Can\$300 are the responsibility of the Globalink research intern)

Under Mitacs's funding policy, we are unable to provide you with any funds in advance of your internship start date. Interns will be responsible for providing payment details following Mitacs's instructions in order to receive funds. Funds transferred outside of Canada may take four to six weeks to arrive; you must therefore have at least one month of spending cash and/or credit available from the start of your internship.

#### **b) Local arrangements**

**Since this internship will be carried out virtually, Mitacs does not take into account expenses for accommodation, local travel, etc.**

Mitacs will assume responsibility for the following aspects of your local arrangements:

1. Professional skills courses and/or industry and/or government meetings delivered virtually to enhance the experience of your research internship
2. Provision of a Mitacs-approved Globalink Mentor for you to consult with virtually about issues and questions that arise during your internship
3. Other virtual activities at the sole discretion of Mitacs.

### **Obligations of the Globalink Research Intern**

1. As COVID-19 continues to impose public health concerns and travel restrictions, this award is contingent on the permission of the host university, host professor, your home university, and funding organizations (as applicable). In circumstances where virtual interactions cannot be arranged to support your project, this Award Letter will be terminated and you will be reimbursed any eligible costs provided you have followed Mitacs's instructions in preparation for your internship and that such costs have not been incurred against the advice of Mitacs.
2. Interns are required to participate in the program for 12 weeks, working a total of 40 hours per week for their host professor on their research project, unless otherwise arranged with the Canadian faculty member and approved by Mitacs. If the duration of your internship needs to be shortened, contact Mitacs at [helpdesk@mitacs.ca](mailto:helpdesk@mitacs.ca).
3. As a key component of the Globalink program, Mitacs may offer program participants opportunities to engage in professional skills courses, industry and government relations meetings, and other networking opportunities to supplement your research experience. Mitacs will, whenever possible, schedule meetings and courses in such a way as to minimize the impact on your primary focus, that of contributing to the research project. You are encouraged to participate in such Mitacs-arranged meetings and courses, and your host professor will be asked to support this component of the Globalink program. You are normally expected to dedicate 40 hours per week to your research project and will need to make arrangements with your host professor regarding time away from your research project.
4. Interns are expected to complete a final survey administered by Mitacs to rate their experience of the program.
5. Interns are required to check with their home university regarding any conditions or actions involved with participating in the program.

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